Prototyper 1.0 Demonstration Version Documentation

Welcome

Welcome to the demonstration version of Prototyper™ 1.0. As you will know from your own experience, the Macintosh has achieved recognition and acceptance in the business arena particularly because of the quality and consistency of the interface common to all Mac applications. Until now, creating the interface for a new Macintosh application was a lengthy and difficult process, requiring the use of highly technical tools, which meant that only the highly technically skilled could directly contribute to the design process.   Prototyper™ 1.0, from SmethersBarnes, makes it possible for everyone, regardless of their level of technical knowledge, to communicate about, influence and contribute to the design of Macintosh software.

What Is Prototyping?

Prototyping is a process which has long been used to great advantage in many engineering disciplines. In software engineering terms, it involves creating a representation of the function and appearance of the program to be produced, a sample of its "look and feel", *before* a tremendous commitment of time and energy is made to implement a particular solution. This means that a number of alternative approaches can be explored quickly and cheaply, in order to decide which one will work best in practice.

Why Use Prototyper™ 1.0 ?

• Prototyper's intuitive design and graphic interface means that you don't even need to know "Inside Macintosh" to put together a complete application interface. All you need is an idea.

• With Prototyper, you have an *effective* way to communicate software ideas. If a picture is worth a thousand words, imagine being able to click and point through a full working Prototype.

• Prototyper's low cost means that it's cost effective for *any* Macintosh user with an idea for an application.

What Does Prototyper™ 1.0 Have to Offer?

Prototyper™ 1.0 is better than the "skin-deep" simulation tools which Macintosh developers have historically been limited to, because:

• Prototyper *uses* the full power of the Macintosh's easy-to-use Graphical Interface, not a difficult-to-master set of technical commands.

• Prototyper can *build* application front ends which exploit the full power of the Macintosh Graphical Interface.

• Prototyper is *faster and more intuitive* to use than any other method, because of its intuitive design. Prototyper was designed for the job; you don't have to resort to lengthy, frustrating work-arounds to get what you want.

• Prototyper creates *real data structures* featured in the Mac interface, *not just bit-mapped representations* of the features. They behave the way they're supposed to.

• Prototyper can *generate program source code and Macintosh Resources* for the interface. These can be compiled by any of the leading Pascal compilers. You can even use the code as the starting point for program development!

• Prototyper *doesn't* take weeks or months to learn. It's as easy to use as your favorite Paint or Draw program. You'll be productive in just a few minutes.

About this Demonstration Version

This demonstration version of Prototyper™ 1.0 has been restricted in a number of ways:

- • 　　The Print... option has been disabled.

- • 　　The Save and Save As... options have been disabled.

- • 　　Generated Code can only be displayed; it is not written out to your disk.

Like Prototyper™ 1.0, this Demonstration program is not copy-protected.

Demonstration Requirements

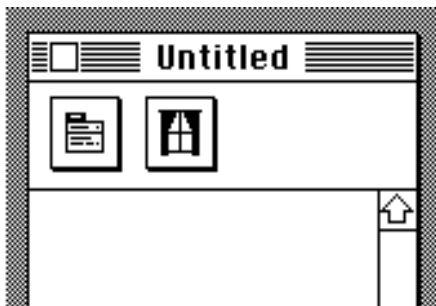In order to run this Demonstration version of Prototyper, you will need:

- • 　　A Macintosh 512KE, or later Macintosh computer.

- • 　　The Apple-recommended System software for your Macintosh.

- • 　　An external floppy drive or additional hard disk is recommended, but is not required.

Running Prototyper

Boot your system, then launch Prototyper™ 1.0 from the Demo Disk by double-clicking the Prototyper™ 1.0 Icon.
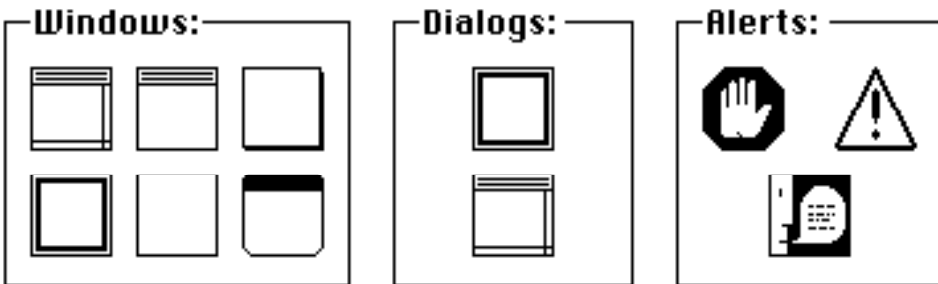
Prototype Window

The window to the right on the screen is the Prototype Window. At the top of the Prototype Window, underneath the Menu and Window buttons, the windows in your Prototype will be listed by title.
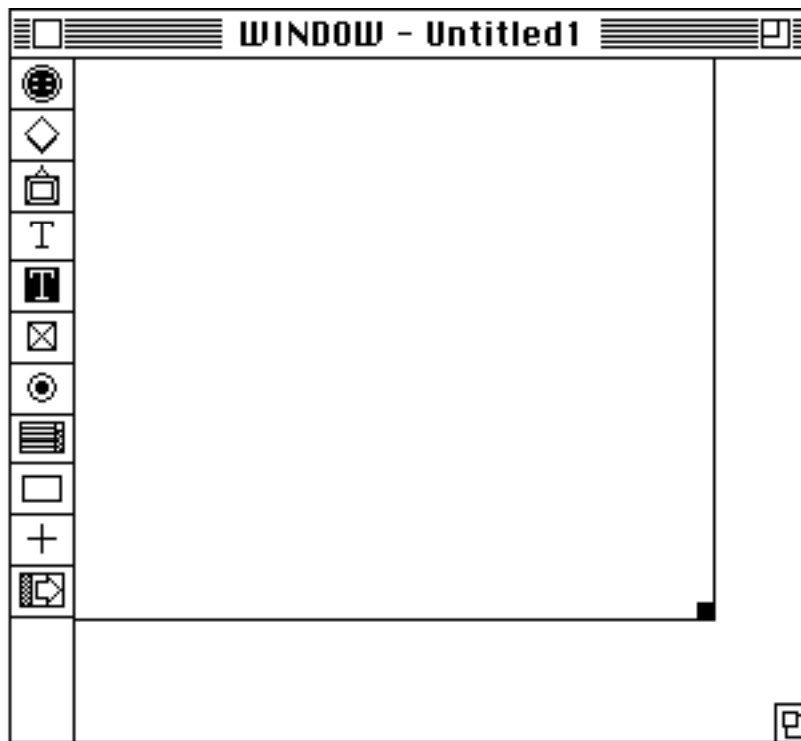
Creating a Window

Click the Window button to create a window for your interface design.

Click on the various Window icons: you'll see a simple description of the window's characteristics, to help you select the type that's most appropriate.

Choose the any window type, then click OK or press Return.

Window Worksheet

The Window Worksheet allows you to edit your window design. If you need a larger window:

•   To give adequate room in the Worksheet for your larger window, expand the Worksheet by dragging the Worksheet's Size Box.

•   Drag the Window Size Box to the size you need.

Zone Tools

The Zone Tools in the Tool Palette allow you to create various Macintosh interface features. Objects within your window are called *Zones*.

Select a Zone Tool, then click and drag a new Zone in your Window Worksheet.

- •   To resize a Zone, drag the small black Size Box at the lower right corner of the Zone's boundary.

- •   To move a Zone, position the cursor on the Zone's boundary line, then drag in the usual way.

- •   To add information to a Zone, change its default values, and so on, double-click it. Each of the Zones has an Editor which allows you to change its characteristics.
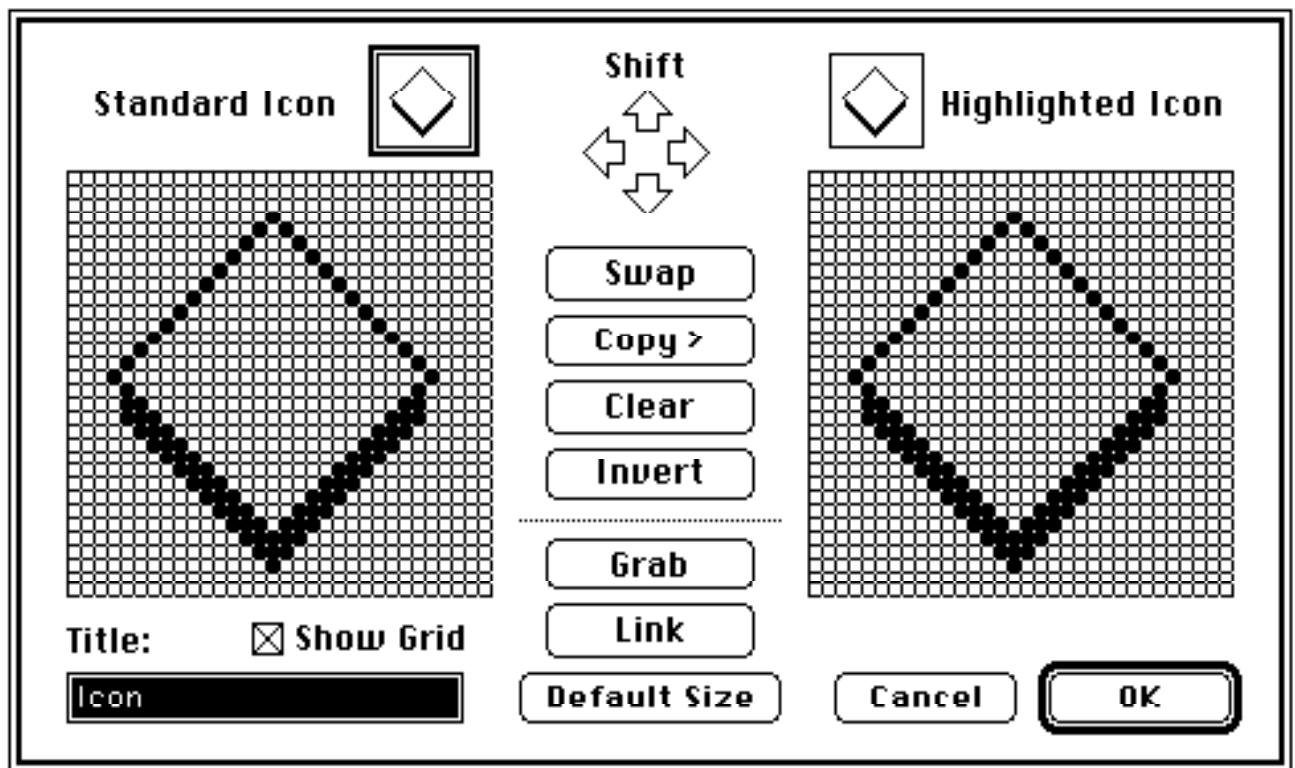
Button Zone

Button Zones can be *Linked* to other Window types in your prototype, so that the user of your prototype can call up a Dialog or Alert by pressing the Button.

Icon Zone

Icons can be edited pixel-by-pixel with the Icon Editor. Icons can be *Linked* to other Window types in the same way as buttons.

Picture Zone

Picture Zones can contain a Picture from your Scrapbook. You can resize the Picture, once you've pasted it in. To copy a picture from your Clipboard, choose Paste from the Edit Menu. Pictures can be *Linked* to other Window types in the same way as buttons.

Static Text Zone

Static Text Zones hold descriptive text, titles, or instructions for the user, particularly in Dialogs and Alerts.

Edit Text Zone

Edit Text Zones allow the user to make input entries in a Window. The text you originally display in an Edit Text Zone is replaced by the user's input when the Prototype is run.

Check Box Zone

Use Check Boxes to select individual options within a program: the check mark is turned on and off to indicate whether the option is selected or not.

Radio Button Zone

Radio Buttons choose between a number of alternative options within a program: the inner black dot indicates the currently selected option.

List Zone

List Zones allow you to put a scrolling Item List in your Window. This is commonly used in the standard File Dialog you'll see in any Macintosh application when you choose an Open... or Save As... menu command.

Rectangle Zone

Use this to quickly draw a box around other Window Zones. Various line styles are available.

Line Zone

Draw horizontal or vertical lines in your Window: press the mouse button at the start of your line, then drag to the end. Line Style choices are the same as for Rectangle Zones.

Scroll Zone

Scroll Zones simulate a scrollbar Control in your Window Prototype.

Notes on Working with Windows

•   Line things up with the Grid-Snap feature, by choosing Grids.. from the Options Menu. Set up an invisible Grid in the Window Worksheet, with intersections spaced a number of pixels apart. When Zones are dragged, they snap to the next grid position automatically.

•   Dialogs and Alerts don't support as many Zone types as Windows do. For reasons, consult a copy of "Human Interface Guidelines", published by Addison-Wesley on behalf of Apple Computer. You'll find a wealth of information about how to design software user-interfaces: what to do, what not to do, and the theory behind interface design.

Special Features

•   Choose QuickLook™ from the Special menu to immediately simulate your Window. No other Prototyping tool lets you see your work as you create it, giving you *immediate* feedback. To return to your Worksheet, just press (**Command-Period**) or (**Command-Q**).

•   Relocate your Window's screen position by choosing the Set Location command from the Special menu. Just drag your window around the simulated Mac screen to reposition it wherever you want!

•   Choosing the Window Info... command from the Special menu brings up a dialog about the Window you're working on. Clicking the Change Window Type button allows you to choose a new Window Type.
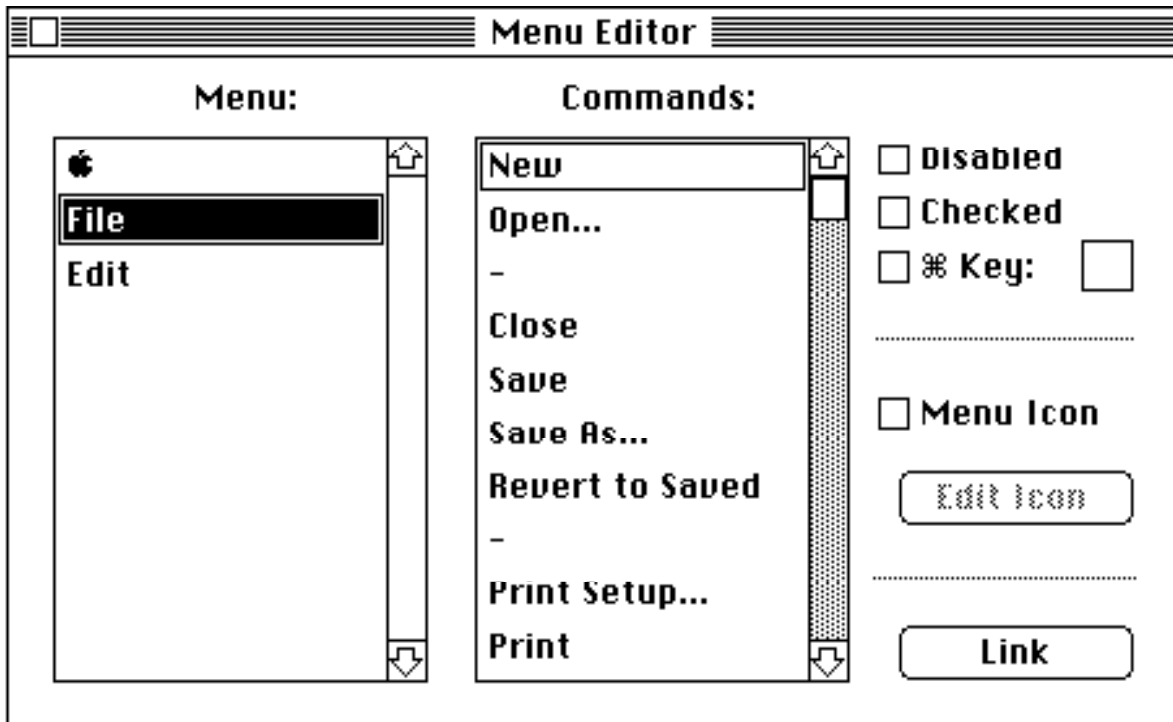
Creating More Windows

•   Click the Prototype Window (you can also get to it if your Window Worksheet is covering it up, by choosing Prototype Window from the Special menu). Then click again on the Window icon to create another Worksheet.

Linking Windows

•   To link a Window button, icon or picture to a Dialog, double-click the zone in the Window Worksheet. Click the Link Button in the Zone Info Dialog. Check one or more windows to which the zone is to be linked.

•   Please note that items can only link *downward* in the Window/Dialog/Alert hierarchy. If you link from a Window button, you'll only be able to link to Dialogs and Alerts; if you link from a button in a Dialog, you'll only be able to link to Alerts.

Creating Menus

•   Click on the Prototype Window. Then click again on the Menu button to create menus for your Prototype.

•   In the Menu Editor Window, you'll see default □, File and Edit menus have been predefined so that you don't have to enter them yourself when you create a new prototype.

•   Click below the Edit entry in the Menu column to add your own menu. Enter your menu title. Add commands by clicking the Command column and entering them. Press Return to add another command. Scroll the ones you've done out of the way with the scroll bars.

•   See an instant simulation of your menu by choosing its title from the right of Prototyper's menubar.

•   Alter the characteristics of the current menu command with the checkboxes to the right: disable/enable, check/uncheck, create a Menu Icon, and so forth.

Linking in the Menu Editor

•   To link a Menu command to a Window/Dialog/Alert, select the command in the Menu Editor. Click the Link Button. Check one or more items to link the button to.

•   Any window type can be linked from a menu command.

Running your Prototype

Under the Special menu, you'll find the Run command. This lets you simulate your entire Prototype. As with QuickLook™, (**Command-Period**) or (**Command-Q**) will end the simulation.

Code Generation

When your Prototype is complete, generate Pascal program code and standard Macintosh resources for the interface you've just designed.

This means:

- you can create a compact standalone application, which can be double-clicked from the desktop.

- the standalone can be distributed to other people who don't have Prototyper™ 1.0.

- you can use the generated code as the starting point for development.

The source code uses no proprietary libraries, is absolutely standard code, and is fully commented and modularized. Each Window you create in your Prototype has a corresponding Unit, two Units are generated for initialization and command input handling, and a main program with event loop is created.

The Macintosh resources needed by your interface are also generated, along with a fully-commented RMaker script file.

There are **no** license fees for the generated code.

With this Demonstration version, no code is output to your disk, but the full version of Prototyper™ 1.0 outputs Pascal source code for the four leading Pascal compilers: Lightspeed Pascal, Turbo Pascal, MPW Pascal and TML Pascal. You will, however, be able to inspect the code on screen as the generation process is demonstrated.

Preferences

- Specify your Pascal compiler type by clicking the appropriate Radio Button.

- Suppress the Zone and Window Type descriptions by turning Show Notes off.

- Speed up Code Generation by turning off Show Code.

- Alter the default indentation of Generated Code using the Format options for each Pascal construct.

Conclusion

Never before has User Interface design, development, and testing been so simple, intuitive,fast, powerful - and affordable!

For more information about how Prototyper can cut your development time and costs, contact:

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Prototyper retails for $125.00 and is available through SmethersBarnes or contact your local dealer.